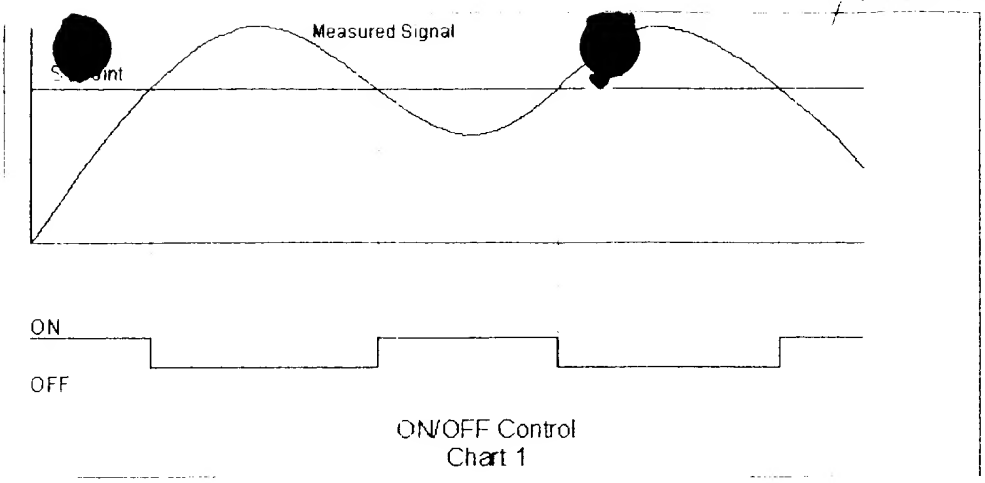
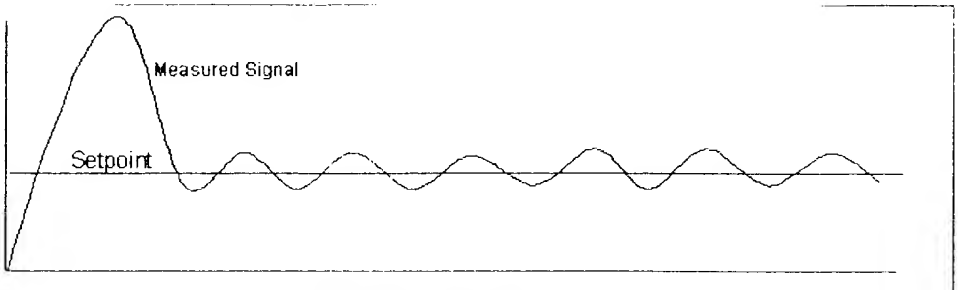
FIG. 1



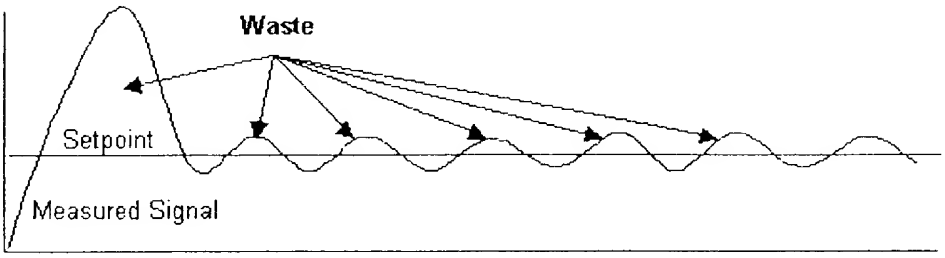
ON/OFF Control
Chart 1

FIG. 2



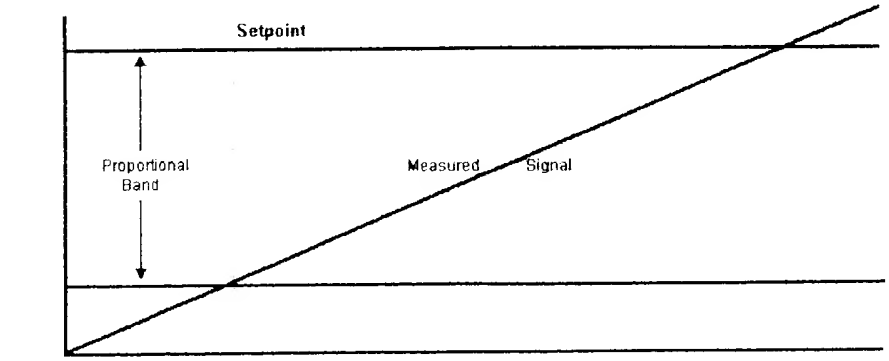
ON/OFF Control Response
Chart 2

FIG. 3



ON/OFF Control Response
Chart 3

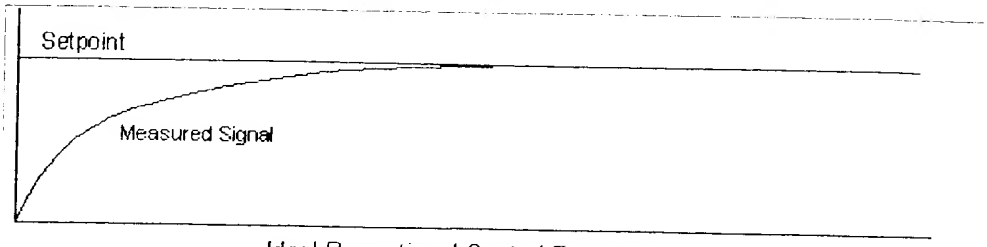
FIG. 4



Time Based Proportional Control
Chart 4
Note the on/off ratio change as the signal approaches setpoint

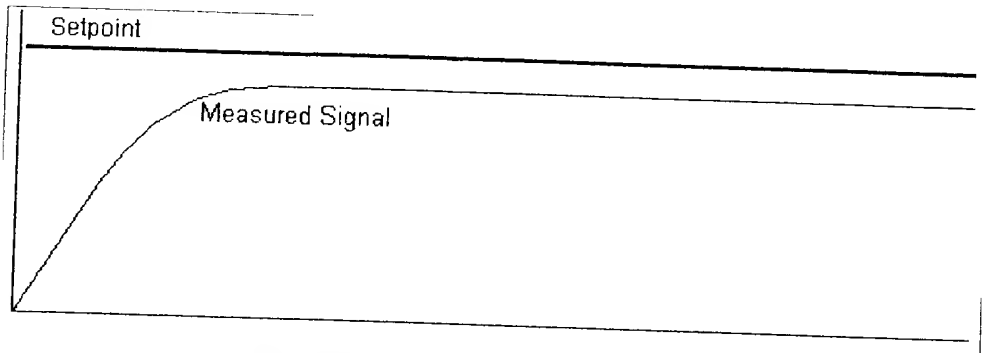
Chart 5 shows the ideal response of a Time Based Proportional control system.

FIG. 5



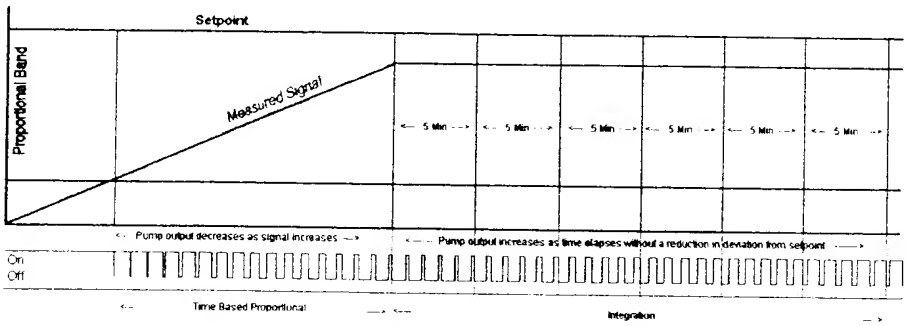
Ideal Proportional Control Response
Chart 5

FIG. 6



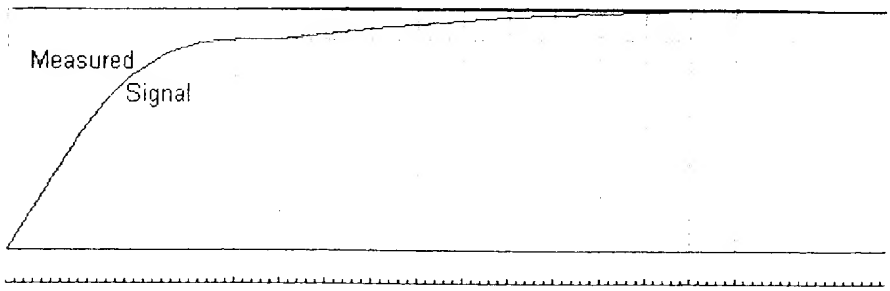
Actual Proportional Control Response (with loading)
Chart 6

FIG. 7



Time Based Proportional with Integration
Chart 7

FIG. 8



Expected Time Based Proportional with Integral Response (under load)
Chart 8

Time Based Proportional Logic - Feed Up Example

PB= Proportional Bandwidth
SIG=Signal from Sensor
SP=Setpoint
TB= Time Base
TBP= Time Based Proportional

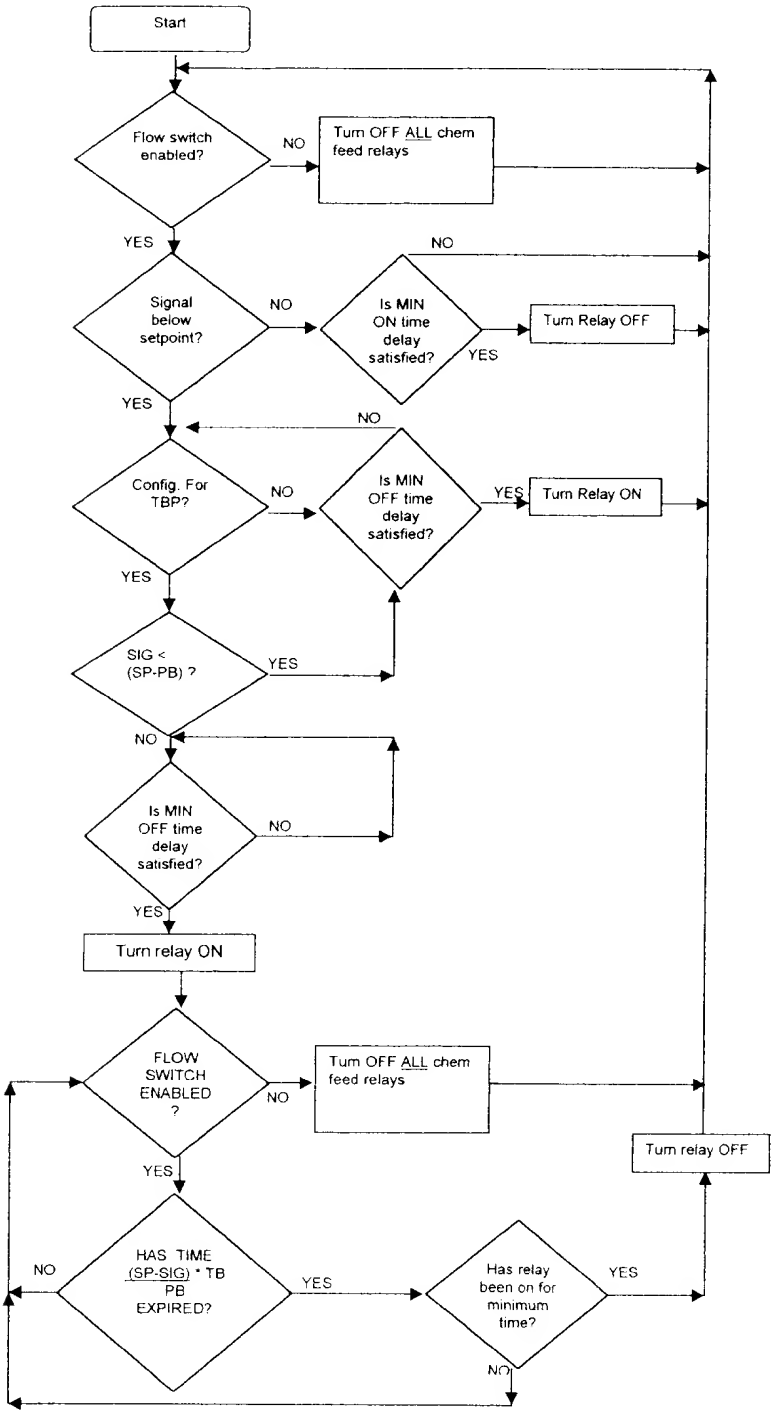


FIGURE 9

Time Based Proportional with Integration Logic - Feed Up Example

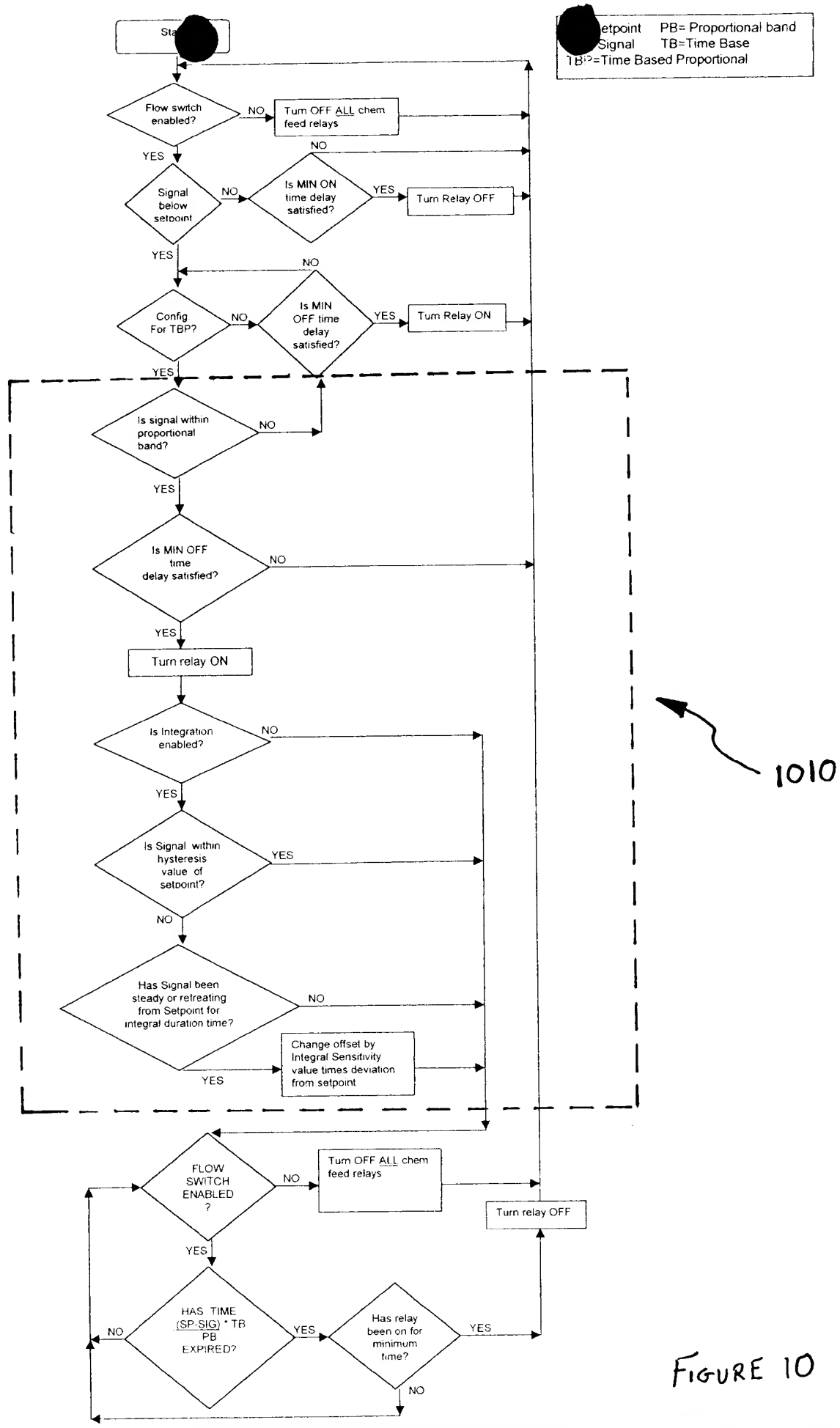


FIGURE 10